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# Wind Energy Conversion Systems : Revised Draft

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## **Sec. 28-150. Special use permit standards for various uses.**

### *(j) Special use standards for wind energy conversion systems.*

#### **(1) Wind energy conversion systems (WECS) .**

(a) *Purpose.* It is the purpose of this section to promote the safe, effective and efficient development and use of wind energy systems as an alternative energy source while protecting scenic values and other policies as set forth in the Comprehensive Plan of the Town of Bristol.

(b) *Findings.* The Town of Bristol finds that wind energy is an abundant, renewable, and non-polluting energy resource and that its conversion to electricity will reduce dependence on nonrenewable energy resources and decrease the air and water pollution that results from the use of conventional energy sources. Distributed small wind energy systems will also enhance the reliability and power quality of the power grid, reduce peak power demands, and help diversify the state's energy supply portfolio. Wind energy also makes the electricity supply market more competitive by promoting customer choice.

(c) *Definitions.* The following words, terms and phrases when used in this section shall have the following meaning:

*Commercial user* means an institutional, industrial or governmental entity.

*Commercial WECS* means any system that utilizes generators with a rated capacity not less than 25 kW per hour of electricity.

*Net metering* means the provision of supplying surplus electricity to a utility company at a pre-determined contract price.

*Residential WECS* means a WECS having a rated capacity of not more than 25 kW and which supplies electrical power solely for onsite use.

*Tower* means the vertical component of a WECS that elevates the wind turbine generator and attached blades above the ground.

*Tower height* means the height above grade of the fixed portion of the tower, including the turbine and the blades.

*Wind energy conversion system (WECS)* — A wind energy conversion system consists of a wind turbine, a tower, and associated control, communication and conversion electronics.

*Wind Turbine* means a generator that converts wind energy into electricity.

(d). *Permitted by special use.* WECS shall be permitted by special use

permit in all zoning districts pursuant to the criteria set forth in Section 28-409(c)(2) and in accordance with the requirements and restrictions set forth below:

1. *Where prohibited.* No WECS shall be allowed within the Bristol Historic District or within 200 feet of the Historic District boundary or an individually designated historic structure.

2. *Procedures.* Special use permit applications for WECS shall include all of the following in addition to any general application requirements.

a. A site plan of the subject property drawn to a uniform scale, including location of the tower, all accessory structures and appurtenant equipment, and the location of any other structures on the site.

b. A report containing a description of the tower with technical support establishing its structural integrity, need for accessory structures (including but not limited to signage, lighting and communication devices).

c. Proof of certification of the design of the WECS by the Federal Department of Energy or other third party certification program recognized by the State of Rhode Island.

d. Standard drawings of the wind turbine structure, including the tower, base, footings and all appurtenant structures, demonstrating compliance with the International Building Code and National Electrical Code, as amended.

e. An engineering analysis demonstrating that the WECS is engineered to withstand appropriate wind loads in conformance with the International Building Code as certified by a licensed professional engineer or manufacturer.

f. Written evidence that the electrical distribution utility company has been informed of the applicant's intent to install an interconnected wind turbine.

3. *Location and dimensional standards.* The following standards shall apply to any WECS permitted under this section. Notwithstanding the foregoing, an applicant may request a dimensional variance for relief from the following requirements. The applicant may request all relief in one hearing and need not seek a separate hearing for relief from this subsection.

a. The permitting of a WECS requires a minimum of five (5) acres.

b. Tower height, inclusive of blade length, shall not exceed 150 meters.

c. The WECS shall be set back from all property lines and from any street a distance equal to one times the tower height,

d. No part of a wind energy system structure, including guy wire anchors, may extend closer than minimum zoning setback requirements of primary structures.

4. *General Conditions.* Any approval under this section shall be subject to the following conditions.

a. Advertising signage, communication devices, cellular dishes or the like not required for the operation of the wind turbine or to ensure public safety may not be attached to a tower.

b. The owner of the property where a WECS is located shall be required to obtain a demolition permit to remove and properly dispose of the structure within 180 days of its abandonment, which shall be defined as the ceasing of the continuous production of electricity for longer than 180 days.

c. WECS at no time shall exceed noise levels as permitted by the Noise Control Ordinance of the Town of Bristol. Any activity constituting a noise disturbance pursuant to the Town Ordinance shall cease immediately upon notice from the Town of Bristol.

d. WECS must at all times comply with all applicable FAA regulations as specified in 14 CFR Part 77, entitled "Objects Affecting Navigable Airspace."